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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/692,644	SUTARDJA, SEHAT	
	Examiner	Art Unit	
	Michael D. Masinick	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-90 and 105-196* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-90 and 105-196* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the amendments and arguments filed 5/12/2008. Claims 1-90 and 105-196 are pending in this application.

Response to Arguments

1. Applicant's arguments filed 5/12/2008 have been fully considered but they are not persuasive. Previous USC 101 rejections are removed as those claims have been amended to clearly comply with U.S. Practice.

2. The term "media access controller" as used in the specification and claims is not given the benefit of being the exact media access control system cited in the wikipedia article. Examiner interpreted the phrase "media access controller" to be a generic digital signal receiving unit which takes a digital signal and turns it into a usable control signal. The claims themselves have no mention of a "MAC Address" or otherwise recite the features cited in the wikipedia article. If they had, the claims would all be rejected under USC 103 in view of Amtel (see rejection of claims 9-11 and all similar claims). This rejection uses the same "MAC address" features combined with the processor to implement the invention of applicant.

3. Thus, applicant's statement that the prior art of record does not show the use of a Media Access Controller is false. Applicant even admits in the background of invention that "MAC 350 frames the digital bitstream produced by baseband processor 352, and filters the frames to select the frames addressed to processor 300, both according to well-known methods." However, this concept of using and address, filtering, or other data processing is not in the claims as written.

4. Examiner maintains that the term "Media Access Controller" as used in claims 1-8, 12-22, 26- 36, 40-50, 54-77, 79-85, 87-90, 105-111, 115-124, 128-138, 142-152, 156-159, 161-167, 169, 171-177,179-182, 184, 186-188 is a generic term for a digital data conversion system. Krause shows the use of the ASCI and RS-232 standards for data communication over a networking system, both of which would have a simple digital communications "media access controller" available to receive and interpret received signals.

5. Amended claims 1 and 15 are rejected below using Atmel, all other claims rejections are maintained as previously written.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 29-36, 40-50, 54-77, 79-85, 87-90, 105-111, 115-124, 128-138, 142-152, 156-159, 161-167, 169, 171-177,179-182, 184, 186-188 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,038,268 to Krause et al.

3. Examiner note: citations for claims 1-28 given below are meant to be citations for the new USC 103 rejection of these claims given below. For sake of non-repetition they are given here with regard to the same claim elements of remaining claims.

4. Referring to claims 29-36, 40-50, 54-77, 79-85, 87-90, 105-111, 115-124, 128-138, 142-152, 156-159, 161-167, 169, 171-177,179-182, 184, 186-188, Krause shows a sprinkler system

(system means, software, etc) comprising: one or more sprinklers each comprising a sprinkler valve adapted to regulate an amount of fluid delivered by the sprinkler in response to a control signal (Abstract: "A plurality of valves may be operated by the system in a number of automatic modes or may be enabled for manual operation within preselected flow volume constraints. "); a master unit adapted to transmit digital data (Column 1, lines 7-10); and a sprinkler controller comprising a receiver adapted to receive a signal representing the digital data ("watering stations", columns 1 and 2); a media access controller adapted to obtain the digital data from the signal (Examiner takes this to mean the communications system which takes a general digital signal and turns it into a usable control signal. This is shown in Column 12, lines 52-69); and a processor adapted to produce the control signal based on the digital data obtained by the media access controller (Column 7, lines 40-63); and an output circuit adapted to provide the control signal to the sprinklers (Figures 5, 6a, and 6b all show circuitry designed to provide valve control functionality. Numerous passages in the text of the patent specification state that the purpose is to control multiple watering stations – thus the need for an output control signal).

5. Referring to claims 2, 16, 30, 44, 58, 67, 76, 84, Krause shows wherein the digital data comprises data representing at least one of the group comprising: a desired sprinkler operation schedule (Column 3, lines 53-59); meteorological conditions; and a status of a fluid supply system supplying the fluid to the sprinklers (Column 7, lines 47-53).

6. Referring to claims 3, 17, 31, 45, 59, 68, 79, 87, Krause shows wherein the sprinkler controller further comprises: a timer adapted to provide a time signal representing a time of day; wherein the processor is adapted to provide the control signal based on the digital data obtained

by the media access controller and the time signal (Column 7, lines 63 through Column 8, line 14).

7. Referring to claims 4, 18, 32, 46, 60, 69, 77, 85, 107, 120, 133, 147, 161, 169, Krause shows wherein the receiver is further adapted to receive a sensor signal provided by one or more sensors; and wherein the processor is further adapted to provide the control signal based on the digital data obtained by the media access controller and the sensor signal ("Soil moisture sensors and a flow meter provide reliable irrigation of large lawns while optimizing water conservation.").

8. Referring to claims 5, 19, 33, 47, 61, 70, Krause shows flow meter sensors in the quotation above.

9. Referring to claims 6, 20, 34, 48, 109, 122, 135, 149, Krause shows the one or more sensors (abstract "sensors").

10. Referring to claims 7, 21, 35, 49, 62, 71, 110, 123, 136, 150, 163, 171, Krause shows wherein the sprinkler controller further comprises: a keypad adapted to provide a keypad control signal in response to operation of the keypad; wherein the processor is further adapted to provide the control signal based on the digital data obtained by the media access controller and the keypad control signal (Column 9, lines 11-49).

11. Referring to claims 8, 22, 36, 50, 63, 72, 111, 124, 137, 151, 164, 172, 177, 184, Krause shows wherein the sprinkler controller further comprises: a display adapted to display a status of the sprinkler controller (Column 5, lines 8-53).

12. Referring to claims 12, 26, 40, 54, 64, 73, 80, 88, 115, 128, 142, 156, 173, 179, 186, Krause shows wherein the sprinkler controller further comprises: a memory adapted to store a

sprinkler schedule; and wherein the processor is further adapted to produce the control signal based on the sprinkler schedule (Figure 6B – "The automatic controller of the present invention is designed to operate with irrigation systems having a plurality of moisture sensors to automatically control irrigation sequences in accordance with a predefined schedule."). Examiner notes that the EPROM/RAM of Figure 6B is the only storage medium of the controllers - thus, if the controllers are set up to operate off of a schedule, this schedule must be installed in the memory units.

13. Referring to claims 13, 27, 41, 55, 65, 74, 81, 89, 116, 129, 143, 157, 165, 174, 180, 187, Krause shows wherein the processor is further adapted to produce the control signal based on the sprinkler schedule stored in the memory when the signal representing the digital data is unavailable (Column 313, line 45 – Column 314, line 15). Examiner notes that this passage makes it clear that the irrigation system functions in accordance with a predetermined schedule unless that schedule is interrupted by a sensed condition. If no condition is sense that would interrupt the schedule (or no interrupting data is sent) then the sprinklers will function in accordance with the predetermined schedule.

14. Referring to claims 14, 28, 42, 56, 82, 90, 117, 130, 144, 158, 166, 181, 188, Krause shows wherein the memory is non-volatile (Figure 6B – EEPROM).

15. Claims 105, 118, 131, 145, 159, 167, 175, 182, 106, 119, 132, 146, 160, 168, 178, 185, 108, 121, 134, 148, 162, 170, 176, 183, 138, and 152 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 4,215,408 to Games et al.

16. This is an alternative 102 rejection to the above rejection as these claims are dedicated to the broadly worded "environmental control system" or the like.

17. Referring to claims 105, 118, 131, 145, 159, 167, 175, 182, Games shows an environmental control system comprising: an environmental control unit adapted to control one or more environmental variables in response to a control signal (temperature - thermostat); master unit adapted to transmit digital data (Contol Unit 204); and a controller comprising a receiver adapted to receive a signal representing the digital data (sensor data); a media access controller adapted to obtain the digital data from the signal, and a processor adapted to produce the control signal based on the digital data obtained by the media access controller (Figure 2); and an output circuit adapted to provide the control signal to the environmental control unit (Line DRVR).

18. Referring to claims 106, 119, 132 , 146, 160, 168, 178, 185, Games shows wherein the digital data comprises data representative of a desired ambient temperature or meteorological conditions (Column 10 shows both temperature and a "weather station").

19. Referring to claims 108, 121, 134, 148, 162, 170, 176, 183 , Games shows wherein the sensor signal represents at least one of the group comprising: sunlight intensity; an ambient temperature; and a relative humidity (temperature and humidity shown in column 10).

20. Referring to claims 138, 152, Games shows a theromostat comprising the controller.

21. It is noted by the examiner that an "environment control system" is thought to be a generic term for any control system that affects any environment. If applicant is looking to specifically claim a thermostat based temperature control system, this would be considered a distinct invention and certain should be restricted from the sprinkler control claims. No

restriction requirement is currently given as these appear to be entirely generic claims at this point, but no argument should be made that the environmental control system is only for temperature control. If this is the case, these claims (independent claims 105, 118, 131, 145, 159, 167, 175, 182 and all dependent claims therefrom) will be restricted.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. Claims 1-28, 37-39, 51-53, 112-114, 125-127, 139-141, 153-155, 189-196 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,038,268 to Krause et al as shown above in view of "Atmel Announces 802.11b Media Access Controller (MAC) with Integrated Baseband for Wireless Applications" (hereinafter "Atmel").

24. Referring to claims 1-8, 12-22, and 26-29, Krause does not clearly and distinctly show a plurality of sprinkler controllers, each comprising a receiver, media access controller, and processor as discussed above in Krause. Krause shows only a central controller receiving information from sensors or sprinklers and converting those signals to control signals to control multiple sprinklers.

25. Referring to claims 9-11, 23-25, 37-39, 51-53, 112-114, 125-127, 139-141, 153-155, Krause does not show that the processor and the media controller are implemented together as a single integrated circuit.

26. The Atmel article shows a wireless 802.11b media access controller "on chip". These chips are designated for use in individual devices for the purpose of receiving a signal from a main device to provide some type of controlled service. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the RS-232 and ASCI interfaces of the Krause patent application with wireless devices as described in the Atmel article because it "…has allowed our customers a path to higher performance, lower cost, and lower power consumption…and allow a very small footprint". Likewise, It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the processor with the media access controller (and wireless functionality) because this integration results in ""higher performance, lower cost and lower power consumption."

27. Referring to claims 10, 24, 38, 52, 113, 126, 140, 154, Atmel shows wherein the receiver is a wireless receiver.

28. Referring to claims 11, 25, 39, 53, 114, 127, 141, 155, Atmel shows wherein the receiver complies with a standard selected from the group consisting of: IEEE 802.11; IEEE 802.11a; **IEEE 802.11b**; IEEE 802.11g; IEEE 802.11h; IEEE 802.11i; Short Messaging Service (SMS); and Analog Display Service Interface (ADSI).

29. Referring to claims 189-196, Atmel show wherein the receiver comprises pager technology (RFMD radio chipset).

30. Claims 78 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,038,268 to Krause et al as shown above in view of U.S. Patent No. 6,585,168 to Caprio et al.

31. Krause does not show the use of ambient temperature, sunlight, or humidity as a sensed condition.

32. Caprio shows where humidity and temperature are sensed in order to control an irrigation system (title of the patent).

33. It would have been obvious to one of ordinary skill at the time the invention was made to use the temperature and humidity sensing concepts presented in Caprio to control the sprinkler system of Krause because of the reasons given in column 2, lines 17-30 of Caprio.

Conclusion

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Masinick whose telephone number is (571) 272-3746. The examiner can normally be reached on Mon-Fri, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael D Masinick/
Primary Examiner, Art Unit 2128